

**BACHELOR OF PHYSIOTHERAPY**  
**SEMESTER-1<sup>ST</sup>**  
**MECA & ELECTRONICS**  
**BPT-104**

**Duration: 3 Hrs.**

**Marks: 70**

**Part : A (Objective) = 20**

**Part : B (Descriptive) = 50**

**[ PART-B : Descriptive ]**

**Duration: 2 Hrs. 40 Mins.**

**Marks: 50**

**[ Answer question no. One (1) & any four (4) from the rest ]**

1. Explain the process of depolarization and repolarization in a cell membrane? Draw suitable diagram to illustrate it. 10
2. (a) Define shock. And explain types of shock. Also mention the method in order to precaution of shock. 5+5=10  
(b) Explain the movement of impulse in a nerve cell.
3. (a) What is action potential? What is the origin of action potential? 6+4=10  
(b) What are the various types of current?
4. What is an electrical transducer? Discuss its working principle and draw a suitable schematic diagram in support of your answer. 10
5. Discuss the principle of condenser, its types and uses. 10
6. What is Operating System? What are its types? Explain different types of OS with Example. 3+3+4=10
7. Explain Computer Memory and its type with example. 10
8. What Computer? Give Block Diagram and also explain the 3<sup>rd</sup> & 5<sup>th</sup> generation of Computer. 2+3+5=10

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**[ PART-A : Objective ]**

**Choose the correct answer from the following :**

**1X20=20**

1. Which generation of computer uses ULSI technology?
  - a. Second
  - b. Third
  - c. Fourth
  - d. Fifth
2. Which of the following was the first commercial computer developed in the year 1951?
  - a. ENIAC
  - b. EDVAC
  - c. EDSAC
  - d. UNIVAC
3. Which of the followings is not a part of an optical mouse?
  - a. LED
  - b. DSP
  - c. Optical sensor
  - d. CCD
4. Which of the following device is not a media input device?
  - a. Microphone
  - b. Webcam
  - c. Digital Camera
  - d. Graphics tablet
5. Which of the followings is not an output device?
  - a. Scanner
  - b. Plotter
  - c. Printer
  - d. Speaker
6. WWW stands for
  - a. World Wide Web
  - b. Wide World Web
  - c. Web Wide World
  - d. None of the above
7. Which of the following are components of Central Processing Unit (CPU) ?
  - a. Arithmetic logic unit, Mouse
  - b. Arithmetic logic unit, Control unit
  - c. Arithmetic logic unit, Integrated Circuits
  - d. Control Unit, Monitor
8. RAM stands for
  - a. Random Access Module
  - b. Randomly Accessible Memory
  - c. Random Access Memory
  - d. None of the Above
9. Who is the founder of Bluetooth
  - a. Ericson
  - b. Apple
  - c. Microsoft
  - d. None of the above
10. Verification is a process of
  - a. Logout
  - b. Login
  - c. Access
  - d. Authentication
11. Modem is the combination of
  - a. Modulator & Demodulator
  - b. Modulation & Demodulation
  - c. Modular & Demodular
  - d. None of the above
12. What is full form of GUI
  - a. Graphical User Interface
  - b. Graphical Unified Interface
  - c. Global User Interface
  - d. None of the above
13. What is LINUX?
  - a. Malware
  - b. Operating System
  - c. Application Program
  - d. Virus
14. The unit of measuring potential difference is called
  - a. Joule
  - b. Coloumb
  - c. Volt
  - d. Watts



15. Which of the following is used in RAM

- a. Conductor
- b. Transistor
- c. Vacuum Tube
- d. Semiconductor

16. Full form of URL is

- a. Uniform Resource Locator
- b. Universal Resource Locator
- c. Unique Resource Locator
- d. None of the above

17. The unit of measuring energy is called

- a. Joule
- b. Coloumb
- c. Volt
- d. Watts

18. The frequency of ultraviolet rays ranges between

- a.  $8 \times 10^4$  to  $3 \times 10^{16}$
- b.  $8 \times 10^2$  to  $3 \times 10^{12}$
- c.  $4 \times 10^3$  to  $4 \times 10^6$
- d.  $5 \times 10^5$  to  $7 \times 10^{12}$

19. The movement of impulse along the cell body of a neuron is called

- a. Jumping
- b. Saltatory convection
- c. Saltatory conduction
- d. Impulse movement

20. The electrode used for monitoring EEG signal is

- a. Skin electrode
- b. Needle electrode
- c. Contact electrode
- d. Microelectrode

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# UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA



**[PART (A) : OBJECTIVE]**

Duration : 20 Minutes

Serial no. of the  
main Answer sheet

Course : .....

Semester : ..... Roll No : .....

Enrollment No : ..... Course code : .....

Course Title : .....

Session : 2017-18 Date : .....

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### Instructions / Guidelines

- The paper contains twenty (20) / ten (10) questions.
- Students shall tick (✓) the correct answer.
- No marks shall be given for overwrite / erasing.
- Students have to submit the Objective Part (Part-A) to the invigilator just after completion of the allotted time from the starting of examination.

Full Marks	Marks Obtained
20	

Scrutinizer's Signature

Examiner's Signature

Invigilator's Signature